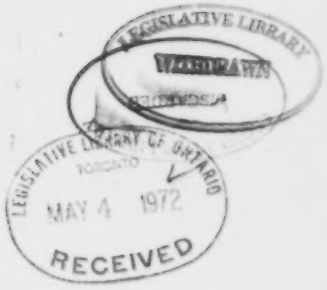
FORESTRY

IN

NEW BRUNSWICK

1961-1969



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INTRODUCTION

This report attempts to assess in various ways the importance of forestry to the economy of New Brunswick. For the purpose of this analysis both the standard forestry sector (logging) and the woods related manufacturing industry groups (wood products and paper and allied) will be examined. The former will be referred to as primary forestry and the latter as secondary forest related industries.

Comparisons of value added in forest related industries to other commodity producing industries in New Brunswick and other Provinces begin the report and form the basis for statements of the importance of the sector. This is supplemented by comparisons of wages and salaries and employment. From this the report turns to an examination of such principal statistics of the individual forest related industries as establishments, shipments and productivity. This is followed by concepts of multipliers, input-output and seasonality as well as a review of destinations of shipments and port traffic. The report concludes with a series of tables for the use of the reader. To draw these tables together and illustrate their usefulness a particular forest related industry (sawmills and planing mills) is examined more closely with reference to the tables.

IMPORTANCE

In Table 1 the net value (or value added) of commodity production is shown for the commodity producing sectors in New Brunswick. Here it is evident that primary forestry in itself is not one of the major contributers to the total value added. It has, however, been historically a dominant industry in New Brunswick's economy and it is obvious from the table that it remains as one of the Province's most important primary industries. Over the course of the years contained in this table net value of commodity production has tended to fluctuate widely, illustrating the typical characteristic oscillation of a primary industry while tending to conceal its slow relative decline. This change in importance is shown somewhat more clearly in Chart 1 where value added for the principal sectors are illustrated over a longer period of time.

Turning to examine value added for the forestry related manufacturing industries one is struck by the size of the paper and allied and wood products industry groups relative to the manufacturing total. This is further illustrated in Table 4 where other comparisons are made to the manufacturing total and to the other industry group in the manufacturing top three, the food and beverage industries. Again from Table 1 it is obvious that the forest related manufacturing industries are growing at a slower rate than all commodity producing industries, at least in terms of value added. This picture may have changed since 1968 because of the number of recent expansions in the pulp and paper industry though current problems in the industry would militate against such a trend in the short run.

Net value of production in both primary and secondary aspects of forestry was equivalent to 29% of total commodity production in 1963 but by 1968 this had slipped to 22%. This was not due to a lack of

growth in the forest related industries but to more rapid growth in other areas; particularly mining, construction, and fisheries. Were net value figures available for the service industries the total net value for the commodity producing and service industries would approximate Gross Provincial Product. In 1963 the forest related industries accounted for roughly a tenth of G.P.P. By 1968 its share was down to 8%. In terms of total wages and salaries (9%) and employment (6%) the share which forest related industries have of the 1968 totals is roughly the same as for value added and G.P.P. (Table 3)

It is also obvious from this Table that forest related industries are more important to New Brunswick than to Canada as a whole. This point is expanded upon in Table 2 where the net value of production in forest related industries is shown by Province. Only in British Columbia is forest related industries more important to the provincial economy. Even in terms of absolute figures value added in New Brunswick's forest related industries is fourth only to British Columbia, Quebec and Ontario.

PRINCIPAL STATISTICS

Table 5 summarizes the principal statistics of the forest related industries of New Brunswick for the year 1968. This theme is expanded upon in tables 6 through 8B where the same statistics are presented for the individual industries for the years 1961 to 1969. It is in these tables that a number of interesting phenomena can be examined; from the obvious, that while most of the establishments are engaged in logging, most of the output is created in the paper and allied industries; to the less obvious that while the number of establishments and employment in the logging industry group declined between 1963 and 1968 the total value of shipments increased by nearly 65%; to the obscure that in 1968 for the first time total wages and salaries in the sash, door and other millwork plants in New Brunswick topped $1 million.

While a closer examination of one of the industries will be made later there are a number of points arising from these tables which it might be useful to note here. First, the total number of establishments in the logging and wood products industries groups has from year to year consistently declined while the number engaged in the paper and allied group has remained virtually the same through the sixties. Secondly, overall employment has grown slowly as expanded employment in the paper and allied and wood products groups has more than offset the decline in the logging industry. Thirdly, in all industry groups and most industries total wages and salaries have risen in spite of some employment declines, reflecting rising average wages and salaries. Fourthly, there has been a general rise in productivity although some industries have experienced apparent ups and downs caused by the small number of firms in some industries and the births or deaths of individual firms.

PRODUCTIVITY

Productivity can be measured in a number of ways, and the two definitions of it employed here (value added per production worker and value added per man-hour) are the most commonly used. It must be noted however that changes in productivity so measured are not necessarily associated with improved labor factors although they are phrased in production worker and man-hour terms. The increased productivity may have resulted from improved capital (better machines) or a more efficient combination of labor and capital. Also as previously mentioned the productivity change may be only an illusion created by a changing composition of firms.

The approach taken provides two basic bits of information on productivity. The series of tables 9 through 11B were created from Tables 6 through 8B and similar information for Canada. First it shows the absolute levels of productivity for the various industries over time. Also shown is New Brunswick's productivity relative to Canada's so that there might be something against which to measure the performance of the Province's firms. From the former it is observed that productivity has risen in New Brunswick for nearly all of the logging and forestry related manufacturing industries, albeit in an unsteady manner for some of the industries. From the latter we observe that the productivity of the New Brunswick firms relative to their Canadian counterparts has generally declined through the Sixties.

A third way of measuring productivity as output per unit of labor input is value added per dollar of wages. This was computed for the pulp and paper mills where productivity was found between 1961 and 1969 to always be below the Canadian levels and losing ground over the period. In addition, the actual level of value added per dollar of

wages dropped for both Canada and New Brunswick. In other words wages grew at a faster rate than value added, primarily as a result of the increases in wages which were granted in the latter half of the Sixties.

It is interesting to note also that at no time during this period for any of the industries was productivity as measured by the first two ways in the New Brunswick firms as high as for Canada. There could be a number of reasons for this situation - smaller plants with shorter production runs, differing product mixes, less efficient plants as the result of older technology, less efficient workers and managers, etc.

MULTIPLIERS

To illustrate the concept of the multiplier consider the following example. Suppose a man receives in wages an additional $100.00 income. He might spend $75.00 buying a new radio. The store will spend $50.00 replacing that radio with new stock. The radio manufacturer will spend $35.00 of the $50.00 received building a new radio and so on until the money is "depleted". The process will eventually peter out as a result of "leakages" (e.g. imports, savings, etc.) in the system but for our example let us end the process at this point. In this example the $100.00 income generated additional spending equal to $160.00 ($75.00 + $50.00 + $35.00). Thus the multiplier in this case would be 2.6 meaning that the total spending generated is 2.6 times the original expenditure of $100.00. A similar example could be devised to show the linkages between the selling of newspapers and the cutting of trees for additional newsprint.

Essentially the employment multiplier is derived in the same manner. That is, an initial expansion in employment (hence output and income) results in additional expenditures on supplies and on various goods and services. Part of this increased demand is met by greater output of New Brunswick goods and this increased output is reflected in higher employment as the process works itself out.

Table 12 makes use of input-output data to show wage and salary and employment multipliers for primary forestry and forest related industries under two models. In model I the multiplier includes only rounds of spending within the industry sectors of the economy. For example, if a manufacturer spent an additional $10,000.00 a year producing wooden boxes, part of the money would be for wages and part for materials such as lumber. The workers would respend part of their money on food, clothing, etc. and the sawmill supplying the lumber would purchase more logs. Model

I only considers the additional rounds of spending within the industrial sector. The wages of the workers would be considered as leakages from this model and would not be included in further rounds of respending. Model II, however, also includes households and governments and is, in effect the entire economy of the Province. The respending of the workers is taken into account, as are succeeding rounds and as a result the multipliers are higher in model II than in model I.

A few examples might clarify the explanation. Using model II the wages and salaries multiplier for primary forestry in 1960 was 1.6. This means that for every additional $1.00 of wages and salaries paid by the forestry sector, the total wages and salaries in New Brunswick would go up by $1.60. Similarly in 1960 the employment multiplier was 1.5. Thus for every ten additional workers hired in the forestry sector, 15 new jobs would have resulted in the economy of New Brunswick. Multipliers are not available for 1965 for model II. It is to be noted that these are relatively low multipliers when compared to other sectors.

In contrast the multipliers for the pulp and paper mills and the sawmills are significantly higher than for primary forestry. In the case of pulp and paper mills in model II the multipliers are larger than in model I because there are lower "leakages" from the model. The employment multiplier was 4.2 in 1960. This would mean that if a pulp and paper mill directly employing 300 people were established in the Province, indirect employment of roughly 960 persons could be expected to be generated for a total gain of about 1260 jobs (300 x 4.2).

INPUT - OUTPUT

Input-Output is a structural cross-sectional analysis of the economy. The I/O table shown here (Table 20) is of the inter-industry type; i.e. the transactions in the economy occur between industries. I/O is most simply a photograph of the economy in a given year. The table shows the dollar value of all transactions between the variou: sectors of the economy, at the level of aggregation used.

The I/O table is basically divided into four major groups of activities:

(1) final demand of goods for direct consumption, e.g. household demand for paper products;

(2) derived demand, e.g. the paper and allied industry uses wood obtained from the forestry sector to create its products;

(3) primary inputs, e.g. the paper and allied sector demands labourers;

(4) the costs of the final demand sector in terms of primary inputs, e.g. people pay taxes to purchase government services.

II Industries Purchase Produced Materials	I Final Demand Purchases Industrial Products
III Industries Purchase Primary Resources	IV Final Demand Purchases Primary Resources

In Table 20, final demand for paper and allied products is $99.5 million. As an example of derived demand, the paper and allied industry purchases materials to a value of $20.9 million from the forestry sector.

As noted earlier, an I/O table illustrates the relationships existing between the individual sectors of the economy. Table 20 will be used to identify the main relationships of the paper and allied industry. Before proceeding, however, a word of caution follows. The data used in the table relates (in default of later material) to 1960, and is thus a decade out of date; thus the relationships used in the examples do not necessarily hold today.

In this table, the total output of $112.9 million for the paper and allied industry for 1960 appears in two places. Reading down the column headed paper and allied allows one to see the inputs from each sector which helped to make up the output of the paper and allied firms. Reading across the row headed paper and allied enables one to discover to which sectors of the economy the output of the paper and allied industry flowed. Both the column and row sum to the total output value.

First, with respect to the flow of output the bulk of the total is final demand, which itself is dominated by exports to foreign countries. In fact $73.0 million or 65% of the total output for 1960 of the paper and allied industry was exported.* A value of $6.4 million went to other Atlantic Provinces and $19.1 million went to other parts of Canada. Some $6.6 million of paper and allied products were imported into New Brunswick in 1960, a quite favourable balance of trade. Between industries, most of the paper and allied output went to other manufacturing industries, particularly sugar refining, fish processing and miscellaneous food plants, presumably as packing materials.

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*Remember, that in the destination of shipments section the bulk of the shipments of the pulp mills in 1967 were exported also. As the pulp and paper mills make up the overwhelming portion of the paper and allied group this finding of course was to be expected. Drastically different figures would have cast doubt on the tables.

From the input side of the picture, the production of the paper and allied industries of $112.9 million can be broken into total intermediate (85.0 million) and total primary ($28.0 million). The main source of supply of the intermediate inputs is, as would be expected, the forestry sector which as noted earlier provided $20.1 million worth of products to the paper and allied industries. Other manufacturing industries such as sawmills, machinery and equipment and petroleum refining were important suppliers. Wages and salaries of $22.7 million made up the bulk of total primary. Other elements are profits, rent, interest, depreciation, etc.

The same exercise can be performed for other industries in which one is interested.* Note that the combined total output of the forestry, the wood products and the paper and allied groups equals 7.5% of the total output of all industries. This figure is not much different from the 8 to 10% of G.P.P. which the forest related industries value added was found to be.

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*In the case of forestry, readers might be surprised to see the negative $6.1 million forestry to forestry entry. This is explained by the fact that the table does not allow agriculture to produce forest products. The value of forestry products produced in the agricultural sector is added into forestry output under sales of agriculture to forestry along with any legitimate agriculture to forestry sales. So that the total output figure of the forestry sector will be correct, this forestry production in the agriculture sector is removed from forestry output by subtraction under the forestry to forestry sales.

SEASONALITY

Monthly employment figures for the New Brunswick forestry sector for the years 1961 to 1970 were seasonally adjusted by a process which creates as a by-product the typical seasonal pattern of the series. This pattern of employment is illustrated in chart 2 and clearly shows the large monthly variations in employment in New Brunswick's forestry sector.

In the chart an average month would be one in which the index was 100. Typically New Brunswick forestry employment begins the year 20% below this mark, then drops sharply reaching its trough during March or April at less than half its average monthly figure. Through May and June employment picks up rapidly then continues to rise at a slower rate until it peaks in August some 40% above the figure for a typical month. In October, employment begins to decline through January where it begins the cycle again.

By comparison note the pattern for Canadian forestry employment. It has an almost identical pattern with respect to peaks and troughs although it has a somewhat smoother transition from rising to falling employment. In dramatic contrast, however, is the magnitude of the seasonal fluctuation. Employment in New Brunswick forestry is about twice as severe as the typical variation of Canadian where it varies between 35% below to 20% above its average month.

Typical monthly patterns of employment were also generated for the New Brunswick wood products and paper and allied industries. Paper and allied showed very little monthly fluctuation generally staying within 5% of the typical month. Wood products also exhibited little variation ($\pm$ 10% or less) probably because the employment data on which it was based came from larger firms (20 or more employees) where seasons would have less effect on employment practices.

DESTINATION OF SHIPMENTS

Recently the Dominion Bureau of Statistics surveyed Canadian manufacturers to determine where they sent their 1967 shipments of products. Tables 16, 17 and 18 provide information on the destination and origin of these shipments for sawmills and planing mills; for sash, door and other millwork plants; and for pulp and paper mills.

The figures contained in these tables refer only to shipments made by Canadian manufacturers and are therefore incomplete in at least two respects. First they do not cover wholesalers so that the destinations listed may not be the final ones. For example Table 18 says that New Brunswick pulp and paper mills shipped $19.3 million of their products to Quebec. It is, however, possible that Quebec was the final destination of more or less than $19.3 million of New Brunswick pulp and paper products. It is conceivable that Quebec was a trans shipment point for some of these goods which were later shipped from the Province. The reverse may also have been true and some N. B. pulp and paper products shipped by manufacturers to other areas might have Quebec as their final destination. The problem of ommission of wholesalers will be less serious for this industry than for others.

The second ommission is imports. As only Canadian manufacturers were surveyed no data on imports could be provided. Thus while it is possible to know the total output of the individual provinces' firms, it is not possible to observe the total size of the provincial markets. Fortunately one can determine the total shipments of Canadian manufacturers to New Brunswick or to any other province. For New Brunswick and the forest related manufacturing industries this should give a reasonably good picture of the Provincial market.

From Table 18 the most noticeable aspect is that, of the $149 million of pulp and paper shipments by New Brunswick firms nearly $92 million was to foreign countries. The next most important markets were Ontario ($21 million) and Quebec ($19 million). Somewhat surprising was the $16 million which remained within New Brunswick. It is likely that this $16 million is on the high side, so that consequently either some or all of the Quebec, Ontario and foreign countries figures are low. Similarly some of the shipments from Quebec and Ontario to New Brunswick were likely shipped through the Province to other areas.

With respect to the sash, door and other millwork plants (Table 17) New Brunswick's manufacturers shipped $1.9 million of their total shipments of $3.3 million to points within New Brunswick. Shipments were also made to Prince Edward Island, Nova Scotia, Ontario and Alberta and an unknown amount was exported. Products of this type of plant were brought to New Brunswick from Nova Scotia, Ontario, Quebec and British Columbia.

Shipments of sawmills and planing mills will be discussed later.

PORT TRAFFIC

This section will cover the shipments of forest-related cargoes shipped through New Brunswick ports and destined for foreign points. The data relating to this section is contained in Table 15 and covers the period 1961 to 1969. Basically the information can be used to give some rough indication of what New Brunswick forest-related products are exported through which ports. The data contained in this table will differ from New Brunswick's exports because (1) some of the forest-related cargoes may have originated elsewhere and (2) not all of New Brunswick's forest cargo exports exit via New Brunswick ports. Nevertheless, at the very least, the information can be used to relate the relative importance of wood product shipments to each of the Province's main ports.

In summary Table 15 reveals that

(1) in terms of cargo tons wood-products comprise about 30% of total cargoes loaded at New Brunswick ports destined for foreign countries.

(2) Over the decade this percentage slipped slightly.

(3) Dalhousie loads more wood-products cargo than any other port, but Saint John has grown the most over the decade and was a very close second by 1969.

(4) By weight more newsprint, woodpulp and pulpwood were loaded at New Brunswick ports for export than any other wood-products.

(5) Pulpwood was at one time or another shipped through every port mentioned in the table. Lumber, woodpulp, logs and newsprint were loaded at about half the ports while other products were generally handled at one or two ports.

Following 1961 total cargo tonnage loaded at New Brunswick ports for foreign countries rose from 1.8 million cargo tons until it leveled

off in 1965 and 1966 at 2.6 million then dropped to 1969, losing about half its previous gain. Wood products which make up a sizable portion of the total followed a similar pattern except that by 1969 it was only slightly above 1961 and fell below the figure for 1962. As a consequence the share which wood products comprised of total cargo tonnage fell from the mid thirties at the beginning of the decade to just under thirty per cent at the end. The mid-decade rise in wood products tonnage can be attributed mainly to increased shipments of lumber and timber and newsprint while the subsequent fall results from a corresponding drop in lumber, timber and pulpwood.

For the main ports Table 15 provides the following information:

Dalhousie: Handles the greatest volume of wood products. Shipments of wood-products for export totaled 213 thousand cargo tons in 1961 and rose erratically to 235 thousand cargo tons by 1969. Newsprint comprises over 95% of the wood products loadings. In 1961 wood products were virtually all that Dalhousie shipped. During the sixties shipments of zinc, lead and copper ore began, grew rapidly, and by weight are now larger than wood products.

Saint John: Second largest port by export tonnage but growing rapidly. Loadings of wood products totaled 108 thousand tons in 1961, but more than doubled by 1969 to 228 thousand tons. This growth can be attributed basically to increased shipments of newsprint and woodpulp. The shipment through Saint John of the production of the new mill at Nackawic should have aided this growth to the extent that by 1971 Saint John has undoubtedly displaced Dalhousie as the port loading the most wood products exports. The size and diversity of the Saint John port however is such that wood products do not dominate Saint John as they do for many of the smaller ports. In 1961 wood products were 9% of total cargo tonnage. It is significant however that by 1969 wood products covered over 17% of the total.

Newcastle: Loaded 81 thousand cargo tons of wood products in 1961 and 81 thousand cargo tons in 1969 although there were sizable fluctuations in between (peak year 1965 - 141 thousand, low year 1967 -

46 thousand). Wood product shipments are now almost entirely woodpulp although in the early sixties pulpwood and lumber were important. Around 1964 there was a spurt of activity in shipping of ores but it did not continue as in Dalhousie.

Chatham: Across the river from Newcastle, Chatham shipped almost exactly the same tonnage of wood products in 1961, (82 thousand tons). Also like Newcastle, Chatham's total cargo tonnage was made up of wood products which were largely pulpwood and lumber. There the similarity ends. When loadings of pulpwood and lumber dwindled, no new products replaced them so that by 1969 loading to foreign countries were down to almost nil.

Briefly with respect to other ports, Bathurst tripled its loadings of wood products to 62 thousand cargo tons because of paperboard shipments, which for all intents and purposes is the only commodity loaded at this port. Campbellton, Caraquet, Grand Manan, Moncton and Richibucto all saw the withering away of the loading of wood products (mainly pulpwood). Only in Grand Manan was this offset, by rising fish loadings. Again in all of these ports with the exception of Grand Manan, wood products were just about all the ports handled anyway, so that the decline in pulpwood shipments has meant a corresponding fading out of port activity.

SAWMILLS AND PLANING MILLS

To conclude this review of forestry and its related industries this section will summarize the findings of a particular forest related industry (sawmills and planing mills). In addition to any information which is provided on sawmills and planing mills it is intended to serve as an example of how the various tables in the report might be drawn together. To assist the reader, reference is made to the appropriate tables by insertion of the table number in brackets where applicable.

Sawmills and planing mills is the largest industry in New Brunswick's wood products industry group. In fact, during 1968 the $35.5 million of shipments (7B) accounted for three quarters of the total value of shipments for the wood products group. Employment, wages and salaries and other establishment data also reflect the predominance of sawmills and planing mills in this industry group.

As a consequence, changes in the wood products data largely reflect changes in sawmills and planing mills. For example in 1968 there were 116 fewer wood products firms (7) than in 1961 and 101 fewer sawmills and planing mills (7B). This decline in the number of sawmills and planing mills basically results from the death of the smaller, older and less productive sawmills and is similar to the decline in the number of farms as the agricultural sector becomes rationalized. This rationalization explains in part the more than doubling in size of the average sawmill and planing mill to 29 employees between 1961 and 1969 and the 53.2% increase in value added per manhour over the same period.

A parallel movement was occuring in the rest of Canada over this period and as the number of firms dropped, the average firm size of productivity grew. The growth in productivity for Canada as a whole was greater than for New Brunswick so that relative productivity slipped (10B).

Sawmills in New Brunswick are concentrated in four basic areas: along the Miramichi, between Boiestown and Newcastle; in the triangle between Fredericton, Moncton and Saint John; along the upper reaches of the Saint John river; and northeast Gloucester county.

Located near their supply of raw resources, the sawmills and planing mills purchased $10.9 million worth of logs and other materials from the forestry sector in 1960.* Another $5.4 million in purchases were made from other mills. The sawmills purchased $7.0 million worth of labour as an important input to their $31.2 million of output.

This output was then sold primarily to the New Brunswick construction sector (non-residential - $4.2 million and residential - $4.8 million), to the pulp and paper industry ($1.9 million), and as mentioned to other sawmills. A large portion of the production was shipped from the Province as $4.8 million went to other parts of Canada and $8.9 million was exported to various parts of the world.

Export data for 1970 show the United States to be the largest purchaser of New Brunswick's lumber and other sawmill products. Great Britain is also an important consumer of our products. Destination of shipment data for 1967 (16) show Quebec and Ontario to be the two provinces receiving the most shipments within Canada. With the exception of British Columbia more sawmill and planing mill products were shipped to each province from New Brunswick then was shipped in the reverse direction.

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*Table 20 shows the type of data for the wood products and paper and allied products groups. Individual industry data is available upon request.

ECONOMIC REGION DEFINITIONS

Northeast

Restigouche

Gloucester

Northumberland

Moncton

Kent

Westmorland

Albert

Saint John

Kings

Saint John

Charlotte

Fredericton

Queens

Sunbury

York

Northwest

Carleton

Victoria

Madawaska

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KEY TO SYMBOLS

..	figures not available
...	figures not appropriate or not applicable
——	nil or zero
--	amount too small to be expressed
p	preliminary figures
r	revised figures
X	confidential

Table 1

Net Value of Commodity Production by Industry, New Brunswick 1961-1968
(thousands of dollars)

Industry	1961	1962	1963	1964	1965	1966	1967	1968	Growth Rate % (1963-1968)
Agriculture	21,929	24,668	25,964	31,963	40,532	37,553	27,168	29,769	+ 14.7
Forestry	34,856	25,189	38,914 25,996	37,456 31,447	27,777	36,120	36,484	36,264	+ 39.5
Fisheries	7,730	9,222	9,350	10,321	10,672	11,198	10,926	15,654	+ 67.4
Trapping	142	167	221	159	254	250	256	134	- 39.4
Mining	7,464	10,018	10,700	25,136	36,472	31,522	32,593	38,812	+ 262.7
Electric Power	21,045	23,402	24,473	25,946	29,500	32,041	35,040	37,484	+ 53.2
Manufactures	154,915	158,289	167,667	188,990	196,237	211,295	210,129	238,940	+ 42.5
Paper & Allied	51,344	48,235	50,109	56,719	57,426	61,542	52,858	57,433	+ 14.6
Wood Products	13,940	14,167	15,829	20,558	19,918	18,060	17,067	19,737	+ 24.7
Construction	52,058	54,457	53,471	70,333	97,876	112,638	119,449	114,564	+ 114.3
Total Commodity Production	300,139	305,412	317,842	384,295	439,320	472,617	472,045	511,621	+ 61.0
Total Forest-Related	100,140	87,591	104,852 91,934	114,733 108,724	105,121	115,722	106,409	113,434	+ 23.4
Forest-Related as a % of Total Commodity Production	33.4	28.7	33.0 28.9	29.9 28.3	23.9	24.5	22.5	22.2	
Forest-Related as a % of GPP	12.2	9.9	11.2 9.8	11.1 10.6	9.4	9.3	7.8	7.7	

Sources: DBS 31-201 & 61-202.

Table 2

Net Value of Production in Forest-Related Industries by Province, 1968

Province	Value Added in Forest-Related Industries $000	Value Added in Total Commodity Producing Industries $000	Forest-Related as a % of Total Value Added 1968	1965
Newfoundland	51,789[1]	459,848	11.3[1]	16.0
P. E. I.	270[2]	66,168	0.4[2]	0.5
Nova Scotia	56,597	589,254	9.6	7.3
New Brunswick	113,434	511,621	22.2	22.1
Quebec	823,131	7,685,446	10.7	11.1
Ontario	790,947	13,560,403	5.8	6.1
Manitoba	35,091	1,178,207	3.0	3.4
Saskatchewan	15,138[2]	1,472,789	1.0[2]	0.6
Alberta	70,933	2,966,574	2.4	2.3
British Columbia	1,143,462	3,244,283	35.2	33.1
Yukon/NWT	503	81,152	0.6	0.6
Canada	3,100,051	31,815,745	9.7	9.7

[1] The figures exclude certain confidential industries of the paper and allied industries group. While they do include pulp and paper mills which comprise the bulk of this group, the 1965 comparison probably reflects a more accurate picture of the role of forest-related as a percentage of total commodity production.

[2] The figures do not include the confidential value added data for the paper and allied industries of the Provinces concerned. However, the 1965 comparison should reflect a more accurate picture of the role of forest-related as a percentage of total commodity production by Province.

Sources: Various DBS publications.

Table 3

Relative Role of Forest-Related Industries
New Brunswick and Canada
1968

	New Brunswick	Canada
Total Value Added	$511.6m	$31,815.7m
Forest-Related Value Added	$113.4m	$ 3,100.1m
Forest-Related as % of Total	22.2	9.7
Total Wages and Salaries	$737.0m	$36,458.0m
Forest-Related Wages and Salaries	$ 68.5m	$ 1,686.8m
Forest-Related as % of Total	9.3	4.6
Total Employment	193,000	7,537,000
Forest-Related Employment	12,483	260,874
Forest-Related as % of Total	6.5	3.5

Sources: Various DBS publications.

Table 4

Principal Statistics of Food and Beverages, Wood Products,

Paper and Allied Industries within Manufacturing Sector, New Brunswick 1968

	Food and Beverage	Wood Products	Paper and Allied	All Manufacturing
Manufacturing Shipments $000	203,565	46,949	168,624	633,578
% of all Manufacturing	(32.1)	(7.4)	(26.6)	(100.0)
Value Added $000	77,445	19,737	57,433	238,940
% of all Manufacturing	(32.4)	(8.3)	(24.0)	(100.0)
Wages and Salaries $000	33,168	11,842	36,090	133,376
% of all Manufacturing	(24.9)	(8.9)	(27.1)	(100.0)
Total Employees	8,821	3,276	5,208	28,138
% of all Manufacturing	(31.3)	(11.6)	(18.5)	(100.0)

Source: DBS 31-201 Preliminary Bulletin.

Table 5

Principal Statistics of Forest-Related Industries, New Brunswick 1968

	Logging (Primary Forestry)	Wood Products	Paper and Allied Products	Total
Number of Establishments	177	144	18	339
Production and Related Workers	3,635	2,869	4,289	10,793
Total Employees	3,999	3,276	5,208	12,483
Wages and Salaries $000	20,548	11,842	36,090	68,480
Value of Shipments $000	72,646	46,949	168,624	288,219
Value-Added $000	36,264	19,737	57,433	113,434

Source: Derived from Tables 6, 7 and 8.

Table 6

Principal Statistics of Logging Industry Group, New Brunswick 1961-1969

Year	Number of Establishments	Production and Related Workers	Total Employees	Salaries and Wages	Value of Shipments	Value Added (Canadian Forestry)	Value Added (Survey of Production)	Estimated Value of Primary Forest Production	Estimated Volume of Primary Forest Production
	(Number)			(thousands of dollars)					M. cu. ft.
1961	-	-	-	-	-	-	34,856	44,097	193,346
1962	-	-	-	-	-	-	25,189	32,098	140,627
1963	256	4,059	4,378	15,098	44,215	22,797	25,996	49,203	198,258
1964	252	4,141	4,520	16,861	51,527	27,618	31,447	47,056	195,503
1965	217	3,738	4,081	15,856	62,229	24,456	27,777	Discontinued	195,297
1966	218	4,391	4,756	20,382	66,012	32,593	36,120	Discontinued	212,621
1967	195	4,241	4,611	21,812	71,091	32,680	36,484	Discontinued	203,800
1968	177	3,635	3,999	20,548	72,646	32,016	36,264	Discontinued	238,059
1969									

Sources: DBS 25-201 and 61-202.

Table 7

Principal Statistics of Wood Products Industries Group, New Brunswick, 1961-1969

Year	Number of Establishments	Production and Related Workers	Total Employees	Salaries and Wages	Value of Shipments	Value Added
	(Number)			(thousands of dollars		
1961	260	2,476	3,046	7,665	30,494	13,940
1962	244	2,636	3,075	8,043	31,651	14,167
1963	233	2,522	3,074	8,732	33,947	15,829
1964	227	2,907	3,496	10,071	40,956	20,558
1965	191	2,771	3,356	10,254	43,122	19,918
1966	176	2,840	3,273	10,827	45,581	18,060
1967	172	2,743	3,112	10,777	41,889	17,067
1968	144	2,869	3,276	11,842	46,949	19,737
1969						

Source: DBS 31-204.

Table 7A

Principal Statistics of Shingle Mills Industry, New Brunswick, 1961-1969

Year	Number of Establishments	Production and Related Workers	Total Employees	Salaries and Wages	Value of Shipments	Value Added
	(Number)			(thousands of dollars)		
1961	4	8	8	21	99	53
1962	3	X	X	X	X	X
1963	4	X	X	X	X	X
1964	2	X	X	X	X	X
1965	2	X	X	X	X	X
1966	4	8	9	37	188	66
1967	4	16	7	32	143	56
1968	5	11	11	41	134	77
1969	5	12	13	61	195	116

Source: DBS 35-204

Table 7B

Principal Statistics of Sawmills and Planing Mills Industry, New Brunswick 1961-1969

Year	Number of Establishments	Production and Related Workers	Total Employees	Salaries and Wages	Value of Shipments	Value Added
	(Number)			(thousands of dollars)		
1961	189	2,010	2,460	6,009	23,736	10,835
1962	178	2,175	2,523	6,481	25,651	11,293
1963	168	1,956	2,411	6,848	26,784	12,504
1964	164	2,326	2,815	8,065	31,920	16,693
1965	134	2,204	2,684	8,060	34,787	16,292
1966	121	2,260	2,591	8,482	35,724	13,928
1967	120	2,235	2,502	8,502	33,306	13,435
1968	88	2,260	2,555	9,037	35,518	14,710
1969	94	2,353	2,742	10,789	45,532	19,020

Source: DBS 35-204.

Table 7C

Principal Statistics of Sash, Door and Other Millwork Plants, New Brunswick, 1961-1969

Year	Number of Establishments	Production and Related Workers	Total Employees	Salaries and Wages	Value of Shipments	Value Added
	(Number)			(thousands of dollars)		
1961	44	200	276	786	3,015	1,332
1962	40	165	221	607	1,963	1,001
1963	39	173	226	635	2,570	1,295
1964	38	200	261	763	3,651	1,397
1965	33	198	256	850	3,036	1,291
1966	29	192	248	911	3,752	1,456
1967	27	185	243	903	3,285	1,165
1968	27	208	273	1,079	4,376	1,625
1969	28	253	327	1,386	5,825	2,437

Source: DBS 35-205

Table 7D

Principal Statistics of Hardwood Flooring Industry, New Brunswick, 1961-1969

Year	Number of Establishments	Production and Related Workers	Total Employees	Salaries and Wages	Value of Shipments	Value Added
	(Number)			(thousands of dollars)		
1961	1	X	X	X	X	X
1962	1	X	X	X	X	X
1963	1	X	X	X	X	X
1964	1	62	64	170	622	250
1965	1	63	65	189	595	141
1966	1	63	65	188	651	215
1967	1	55	57	180	578	261
1968	1	57	59	191	642	271
1969	1	55	57	165	463	192

Source: DBS 35-203

Table 7E

Principal Statistics of Wooden Box Factories, New Brunswick, 1961-1969

Year	Number of Establishments	Production and Related Workers	Total Employees	Salaries and Wages	Value of Shipments	Value Added
	(Number)			(thousands of dollars)		
1961	4	16	19	41	122	73
1962	4	15	18	40	116	66
1963	4	15	18	34	89	56
1964	5	15	18	41	114	76
1965	5	12	15	33	103	61
1966	4	8	10	23	64	42
1967	4	5	7	14	51	33
1968	6	14	18	70	206	103
1969	5	20	22	83	231	136

Source: DBS 35-209

Table 7F

Principal Statistics of Miscellaneous Wood Industry, New Brunswick 1961-1969

Year	Number of Establishments	Production and Related Workers	Total Employees	Salaries and Wages	Value of Shipments	Value Added
	(Number)			(thousands of dollars)		
1961	14	138	165	547	2,593	1,263
1962	14	149	172	575	2,823	1,311
1963	14	169	197	633	2,773	1,122
1964	14	171	196	595	3,265	1,478
1965	13	162	195	617	3,055	1,424
1966	14	170	197	681	3,596	1,587
1967	13	184	210	843	3,696	1,702
1968	14	172	195	793	3,927	1,841
1969	14	194	227	1,027	5,425	2,406

Source: DBS 35-208.

Table 8

Principal Statistics of Paper and Allied Industries Group, New Brunswick, 1961-1969

Year	Number of Establishments	Production and Related Workers	Total Employees	Salaries and Wages	Value of Shipments	Value Added
	(number)			(thousands of dollars)		
1961	19	3,849	4,668	22,961	113,579	51,344
1962	19	3,903	4,708	23,767	112,676	48,235
1963	18	3,895	4,640	23,795	119,874	50,109
1964	19	4,038	4,838	25,738	134,128	56,719
1965	19	4,255	5,166	29,517	148,321	57,426
1966	19	4,321	5,200	32,083	161,943	61,542
1967	19	4,354	5,285	34,481	157,832	52,858
1968	18	4,289	5,208	36,090	168,624	57,433
1969						

Source: DBS 31-204.

Table 8A

Principal Statistics of Pulp and Paper Mills Industry, New Brunswick, 1961-1969

Year	Number of Establishments	Production and Related Workers	Total Employees	Salaries and Wages	Value of Shipments	Value Added
	(number)			(thousands of dollars)		
1961	8	3,600	4,195	20,788	108,468	49,455
1962	8	3,623	4,207	21,401	106,663	46,244
1963	8	3,640	4,143	21,382	113,306	47,921
1964	9	3,789	4,342	23,203	127,099	54,278
1965	10	4,008	4,671	26,917	141,082	55,094
1966	10	4,065	4,699	29,291	154,050	58,807
1967	10	4,085	4,770	31,487	149,062	49,971
1968	9	3,986	4,668	32,593	159,153	54,288
1969	9	4,067	4,743	35,563	178,355	63,550

Source: DBS 36-204.

Table 8B

Principal Statistics of Folding Cartons and Set-Up Boxes Industry, New Brunswick, 1961-1969

Year	Number of Establishments	Production and Related Workers	Total Employees	Salaries and Wages	Value of Shipments	Value Added
	(number)			(thousands of dollars)		
1961	5	75	86	234	938	351
1962	5	X	X	X	X	X
1963	4	X	X	X	X	X
1964	4	X	X	X	X	X
1965	3	X	X	X	X	X
1966	4	X	X	X	X	X
1967	4	53	61	225	925	381
1968	4	50	58	227	918	371
1969	4	X	X	X	X	X

Source: DBS 36-214

Table 9

Productivity of Logging Industry Group,

N. B. and Canada, 1961-1969

	Value Added Per Production Worker			Value Added Per Manhour		
Year	N. B.	Canada	N.B. as % of Canada	N. B.	Canada	N.B. as % of Canada
1961	..	..	..	..	..	..
1962	..	..	..	..	..	..
1963	$5,616	$8,147	68.9	$2.33	$3.57	65.3
1964	6,669	8,591	77.6	2.75	3.77	72.9
1965	6,543	9,784	66.9	2.71	4.31	62.9
1966	7,423	10,981	67.6	3.07	4.82	63.7
1967	7,706	12,056	63.9	3.22	5.31	60.6
1968	8,808	14,254	61.8	3.67	6.31	58.2
1969						

Source: DBS 25-201

Table 10

Productivity of Wood Product Industries Group, N. B. and Canada, 1961-1969

	Value Added Per Production Worker			Value Added Per Manhour		
Year	N. B.	Canada	N.B. as % of Canada	N. B.	Canada	N.B. as % of Canada
1961	$5,630	$6,464	87.1	$2.48	$3.16	78.5
1962	5,374	7,263	74.0	2.31	3.40	67.9
1963	6,276	7,852	79.9	2.71	3.68	73.6
1964	7,072	8,143	86.8	3.09	3.78	81.7
1965	7,188	8,358	86.0	3.08	3.87	79.6
1966	6,359	8,749	72.7	2.75	4.10	67.1
1967	6,222	9,471	65.7	2.72	4.43	61.4
1968	6,879	11,538	59.6	3.16	5.43	58.2
1969						

Source: DBS 31-204

Table 10A

Productivity of Shingle Mills Industry, N. B. and Canada, 1961-1969

Year	Value Added Per Production Worker			Value Added Per Manhour		
	N. B.	Canada	N.B. as % of Canada	N. B.	Canada	N.B. as % of Canada
1961	$6,625	$6,247	106.1	$2.52	$3.39	74.3
1962	X	6,814	..	X	3.56	..
1963	X	8,402	..	X	4.43	..
1964	X	7,680	..	X	3.93	..
1965	X	7,190	..	X	3.66	..
1966	8,250	8,229	100.3	3.88	4.26	91.1
1967	9,333	9,226	101.2	3.73	4.73	78.9
1968	7,000	12,148	57.6	3.35	6.31	53.1
1969	9,667	11,349	85.2	4.46	5.85	76.2

Source: DBS 35-204

Table 10B

Productivity of Sawmills and Planing Mills Industry, N. B. and Canada, 1961-1969

	Value Added Per Production Worker			Value Added Per Manhour		
Year	N. B.	Canada	N.B. as % of Canada	N. B.	Canada	N.B. as % of Canada
1961	$5,391	$6,469	83.3	$2.37	$3.24	73.1
1962	5,192	7,528	69.0	2.22	3.54	62.7
1963	6,393	8,253	77.5	2.73	3.87	70.5
1964	7,177	8,521	84.2	3.12	3.96	78.8
1965	7,392	8,645	85.5	3.17	4.03	78.7
1966	6,163	9,028	68.3	2.64	4.20	62.9
1967	6,011	9,577	62.8	2.60	4.45	58.4
1968	6,509	12,662	51.4	2.96	5.87	50.4
1969	8,083	12,469	64.8	3.63	5.83	62.3

Source: DBS 35-204.

Table 10C

Productivity of Sash, Door and Other Millwork Plants, N. B. and Canada, 1961-1969

	Value Added Per Production Worker			Value Added Per Manhour		
Year	N. B.	Canada	N.B. as % of Canada	N. B.	Canada	N.B. as % of Canada
1961	$6,660	$7,387	90.2	$2.80	$3.42	81.9
1962	6,067	7,566	80.2	2.65	3.46	76.6
1963	7,486	7,867	95.2	3.46	3.58	96.6
1964	6,985	8,461	82.6	3.17	3.80	83.4
1965	6,520	8,647	75.4	2.78	3.89	71.5
1966	7,583	9,480	80.0	3.46	4.37	79.2
1967	6,297	9,832	64.0	3.01	4.53	66.4
1968	7,813	10,483	74.5	3.88	4.88	79.5
1969	9,632	12,062	79.9	4.62	5.66	81.6

Source: DBS 35-205

Table 10D

Productivity of Hardwood Flooring Industry, N. B. and Canada, 1961-1969

Year	Value Added Per Production Worker			Value Added Per Manhour		
	N. B.	Canada	N.B. as % of Canada	N. B.	Canada	N.B. as % of Canada
1961	X	$5,534	X	X	$2.53	X
1962	X	6,143	X	X	2.73	X
1963	X	6,608	X	X	2.86	X
1964	$4,032	6,888	58.5	$1.82	2.95	61.7
1965	2,238	6,403	35.0	.99	2.72	36.4
1966	3,413	6,971	49.0	1.52	3.01	50.5
1967	4,745	8,297	57.2	2.16	3.66	59.0
1968	4,754	8,864	53.6	2.15	3.93	54.7
1969	3,491	8,419	41.5	1.79	3.72	48.1

Source: DBS 35-203

Table 10E

Productivity of Wooden Box Factories, N. B. and Canada, 1961-1969

	Value Added Per Production Worker			Value Added Per Manhour		
Year	N. B.	Canada	N.B. as % of Canada	N. B.	Canada	N.B. as % of Canada
1961	$4,563	$5,012	91.0	$1.78	$2.32	76.7
1962	4,400	5,661	77.7	1.69	2.62	64.5
1963	3,733	6,740	65.0	1.93	2.68	72.0
1964	5,067	6,089	83.2	2.30	2.79	82.4
1965	5,083	7,265	70.0	2.35	3.30	71.2
1966	5,250	7,361	71.3	2.47	3.38	73.1
1967	6,600	8,574	77.0	3.30	4.01	82.3
1968	7,286	8,928	81.6	3.64	4.30	84.7
1969	6,800	9,921	68.5	3.32	4.71	70.5

Source: DBS 35-209

Table 10F

Productivity of Miscellaneous Wood Industry, N. B. and Canada, 1961-1969

	Value Added Per Production Worker			Value Added Per Manhour		
Year	N. B.	Canada	N.B. as % of Canada	N. B.	Canada	N.B. as % of Canada
1961	$9,152	$6,819	134.2	$4.07	$3.30	123.3
1962	8,799	6,789	129.6	3.68	3.13	117.6
1963	6,639	7,204	92.2	2.91	3.38	86.1
1964	8,643	7,556	114.4	3.86	3.53	109.3
1965	8,790	8,321	105.6	3.94	3.86	102.1
1966	9,335	9,010	103.6	3.95	4.35	90.8
1967	9,250	9,495	97.4	3.94	4.56	86.4
1968	10,703	10,583	101.1	4.73	5.04	93.8
1969	12,402	11,672	106.3	5.48	5.46	100.4

Source: DBS 35-208

Table 11

Productivity of Paper and Allied Industries Group, N. B. and Canada, 1961-1969

	Value Added Per Production Worker			Value Added Per Manhour		
Year	N. B.	Canada	N.B. as % of Canada	N. B.	Canada	N.B. as % of Canada
1961	$13,340	$14,072	94.8	$6.21	$6.52	95.2
1962	12,358	14,657	84.3	5.73	6.72	85.3
1963	12,865	15,198	84.6	6.00	6.96	86.2
1964	14,046	15,923	88.2	6.54	7.23	90.5
1965	13,496	16,042	84.1	6.05	7.32	82.7
1966	14,243	16,452	86.6	6.25	7.48	83.6
1967	12,140	16,029	75.7	5.43	7.36	73.8
1968	13,391	16,702	80.2	5.92	7.69	77.0
1969						

Source: DBS 36-201

Table 11A

Productivity of Pulp and Paper Mills Industry, N. B. and Canada, 1961-1969

Year	Value Added Per Production Worker			Value Added Per Manhour		
	N. B.	Canada	N.B. as % of Canada	N. B.	Canada	N.B. as % of Canada
1961	$13,738	$15,734	87.3	$6.42	$7.24	88.7
1962	12,764	16,378	77.9	5.90	7.47	79.0
1963	13,165	16,936	77.7	6.16	7.70	80.0
1964	14,325	17,771	80.6	6.70	8.00	83.8
1965	13,746	17,797	77.2	6.16	8.07	76.3
1966	14,467	18,080	80.0	6.33	8.15	77.7
1967	12,233	17,181	71.2	5.46	7.83	69.7
1968	13,620	17,927	76.0	6.01	8.21	73.2
1969	15,626	20,213	77.3	6.83	9.17	74.5

Source: DBS 36-204

Table 11B

Productivity of Folding Cartons and Set-Up Boxes Industry,
N. B. and Canada, 1961-1969

	Value Added Per Production Worker			Value Added Per Manhour		
Year	N. B.	Canada	N.B. as % of Canada	N. B.	Canada	N.B. as % of Canada
1961	$4,680	$7,768	60.2	$1.97	$3.67	53.7
1962	X	8,314	..	X	3.85	..
1963	X	8,681	..	X	4.07	..
1964	X	8,963	..	X	4.20	..
1965	X	9,365	..	X	4.44	..
1966	X	10,076	..	X	4.72	..
1967	7,189	10,728	67.0	3.50	5.08	68.9
1968	7,400	11,526	64.2	3.43	5.46	62.8
1969	X			X		

Source: DBS 36-204

Table 12

Wage and Salary and Employment Multipliers for Primary Forestry and Forest-Related Industries, New Brunswick, 1960 and 1965

	Model I				Model II			
	Wages & Salary		Employment		Wages & Salary		Employment	
	1960	1965	1960	1965	1960	1965	1960	1965
Primary Forestry	1.0	1.4	1.0	..	1.6	..	1.5	..
Wood Products	1.9	2.0	1.3	..	2.8	..	1.3	..
Sawmills	2.1	1.9	2.3	..	3.3	..	3.5	..
Paper Products	1.8	1.8	1.6	..	2.7	..	2.5	..
Pulp and Paper	1.9	2.1	2.5	..	2.9	..	4.2	..

Source: New Brunswick Input-Output Tables (DBS).

Table 13

Principal Statistics of the Wood Products and Paper and Allied Industries, New Brunswick, by Economic Regions, 1966

	Establishments	Production & Related Workers		Value of Shipments	Value Added	Total Employees	
		Number	Wages ($'000)	($'000)	($'000)	Number	Salaries & Wages ($'000)
Wood Industries							
Regions							
Northeast	45	857	2,737	13,453	4,868	940	3,131
Moncton	28	318	957	5,378	2,476	418	1,403
Saint John	27	370	1,156	6,271	2,463	446	1,501
Remainder of Province	76	1,295	4,091	20,479	8,253	1,469	12,973
New Brunswick	176	2,840	8,941	45,581	18,060	3,273	19,008
Paper and Allied Industries							
Regions							
Northeast	5	2,617	16,232	80,528	31,536	3,057	19,423
Remainder of Province	14	1,704	9,278	81,415	30,006	2,143	12,660
New Brunswick	19	4,321	25,510	161,943	61,542	5,200	32,083

See page 20 for regional definitions.

Source: DBS Special Request by the Office of the Economic Advisor, 1969.

Table 14

Land Area Classification in New Brunswick by Economic Regions, 1965

Regions		Productive Forest Land	Non-Productive Forest Land	Wasteland	Water	Cleared Land		Total Area
						Cultivated	Occupied	
Northeast	'000 acres	5,747	95	199	57	226	48	6,372
	% of N. B.	37.2	32.6	31.6	14.3	17.1	27.0	34.9
Moncton	'000 acres	1,967	52	133	25	338	27	2,542
	% of N. B.	12.7	17.9	21.1	6.3	25.5	15.2	13.9
Saint John	'000 acres	1,745	44	91	104	169	32	2,185
	% of N. B.	11.3	15.1	14.5	26.1	12.8	18.0	12.0
Fredericton	'000 acres	3,381	73	176	175	217	41	4,063
	% of N. B.	21.9	25.1	28.0	44.0	16.4	23.0	22.2
Northwest	'000 acres	2,615	27	30	37	374	30	3,113
	% of N. B.	16.9	9.3	4.8	9.3	28.2	16.9	17.0
New Brunswick '000 acres		15,455	291	629	398	1,324	178	18,275
% of Total Area		84.6	1.6	3.4	2.2	7.2	1.0	100.0

See page 20 for regional definitions.

Source: New Brunswick Department of Natural Resources.

Table 15

Forest-Related Cargoes Loaded at New Brunswick Ports for Foreign Countries, 1961-1969
(cargo tons)

	1961	1962	1963	1964	1965	1966	1967	1968	1969
BATHURST									
Pulp	--	--	--	--	--	--	556	--	549
Logs Round Timber	1,298	1,598	--	--	--	--	--	--	--
Pulpwood	17,627	21,217	4,607	--	--	807	--	--	--
Lumber and Timber	109	1,517	1,050	3,135	642	93	--	120	--
Paperboard	1,197	15,110	14,399	15,041	13,657	42,794	44,134	57,485	61,205
Total Wood-Products	20,231	39,442	20,056	18,176	14,299	43,694	44,690	57,605	61,754
Machinery	--	--	66	5	--	--	--	--	--
Other	--	1	42	--	--	--	--	--	--
Total Cargoes	20,231	39,443	20,164	18,181	14,299	43,694	44,690	57,605	61,754
BUCTOUCHE									
Pulpwood	4,100	10,100	--	3,626	4,001	--	--	--	--
Other	--	--	--	--	--	--	--	--	--
Total Wood-Products	4,100	10,100	--	3,626	4,001	--	--	--	--
Total Cargoes	4,100	10,100	--	3,626	4,001	--	--	--	--

Table 15 (continued)

	1961	1962	1963	1964	1965	1966	1967	1968	1969
CAMPBELLTON									
Pulpwood	7,244	10,542	6,059	--	--	--	--	--	--
Lumber and Timber	7,361	3,685	5,108	7,554	13,223	14,382	8,195	--	--
Woodpulp	2,561	779	9,161	6,155	5,460	1,082	3,696	3,985	1,937
Newsprint	1,605	--	--	--	--	558	--	--	--
Wood Fabricated N.E.S.	--	--	--	--	--	4	--	--	--
Shingles and Shakes	--	--	--	--	12	4	--	--	--
Flooring	--	--	--	--	5	--	--	--	--
Sawmill Products N.E.S.	--	6	--	6	--	--	--	--	--
Total Wood-Products	18,771	15,012	20,328	13,715	18,700	16,030	11,891	3,985	1,937
Other	1,575	--	--	--	8	--	--	--	--
Total Cargoes	20,346	15,012	20,328	13,715	18,708	16,030	11,891	3,985	1,937

Table 15 (continued)

	1961	1962	1963	1964	1965	1966	1967	1968	1969
CARAQUET									
Logs Round Timber	5,968	11,752	--	--	5,142	3,125	--	--	--
Pulpwood	24,877	12,919	6,929	22,709	25,829	9,328	8,585	4,750	1,980
Total Wood-Products	30,845	24,671	6,929	22,709	30,971	12,453	8,585	4,750	1,980
Fish	1,457	1,776	2,286	1,090	1,841	1,733	1,602	1,246	600
Other	164	--	3	400	5,680	--	--	--	743
Total Cargoes	32,466	26,447	9,218	24,199	38,492	14,186	10,187	5,996	3,323
CHATHAM									
Logs Round Timber	4,070	4,092	--	--	--	--	--	--	--
Pulpwood	67,345	79,141	51,615	53,808	40,808	13,837	6,795	1,065	--
Lumber and Timber	10,945	11,409	11,947	13,751	13,241	1,725	--	--	--
Veneer and Plywood	--	--	--	--	88	--	--	--	--
Woodpulp	--	--	--	--	6,462	1,468	--	2,794	--
Total Wood-Products	82,360	94,642	63,562	67,559	60,599	17,030	6,795	3,859	--
Other	--	--	94	--	--	--	--	--	--
Total Cargoes	82,360	94,642	63,656	67,559	60,599	17,030	6,795	3,859	--

Table 15 (continued)

	1961	1962	1963	1964	1965	1966	1967	1968	1969
DALHOUSIE									
Logs	--	--	--	--	--	--	--	409	--
Pulpwood	408	--	--	--	--	--	--	--	--
Lumber and Timber	390	326	7,157	14,157	8,330	2,376	5	60	34
Woodpulp	4,441	10,872	3,081	4,169	4,668	2,686	5,963	6,557	5,651
Newsprint Paper	207,996	185,573	200,399	249,150	201,419	246,320	254,325	226,659	234,908
Paperboard	--	--	4,544	--	--	--	--	--	--
Total Wood-Products	213,235	196,771	215,181	267,476	214,417	251,382	260,293	233,685	240,593
Copper Ore	--	19,785	40,495	43,412	41,059	37,132	24,895	12,609	8,207
Lead Ore	--	--	--	59,207	142,875	149,897	96,447	112,685	39,626
Zinc Ore	--	--	--	108,584	277,784	263,610	258,038	264,719	260,798
Other	802	4,849	6,753	3,765	5,443	5,518	7,063	7,886	18,545
Total Cargoes	214,037	221,405	262,429	482,444	681,578	707,539	646,736	..	..

Table 15 (continued)

	1961	1962	1963	1964	1965	1966	1967	1968	1969
GRAND MANAN									
Pulpwood	6,425	9,000	20,000	21,525	21,600	19,125	5,550	--	--
Total Wood-Products	6,425	9,000	20,000	21,525	21,600	19,125	5,550	--	--
Fish	8,015	7,762	5,266	12,868	23,670	30,458	22,107	30,772	18,486
Other	427	705	602	935	1,256	1,329	1,587	2,009	1,915
Total Cargoes	14,867	17,467	25,868	35,328	46,526	50,912	29,244	32,781	20,401
MONCTON									
Pulpwood	11,215	10,592	8,579	10,528	11,245	8,656	1,444	7,265	2,680
Total Wood-Products	11,215	10,592	8,579	10,528	11,245	8,656	1,444	7,265	2,680
Fresh Fruits N.E.S.	110	--	--	--	--	--	--	--	--
Potatoes	95	--	90	--	--	--	--	--	--
Other	--	--	45	--	--	--	--	--	--
Total Cargoes	11,420	10,592	8,714	10,528	11,245	8,656	1,444	7,265	2,680

Table 15 (continued)

	1961	1962	1963	1964	1965	1966	1967	1968	1969
RICHIBUCTO									
Pulpwood	27,065	41,441	20,055	38,473	19,852	7,309	--	--	--
Total Wood-Products	27,065	41,441	20,055	38,473	19,852	7,309	--	--	--
Other	--	22	--	--	--	--	--	--	--
Total Cargoes	27,065	41,463	20,055	38,473	19,852	7,309	--	--	--
NEWCASTLE									
Logs Round Timber	16,818	8,308	--	375	632	--	--	--	--
Pulpwood	28,266	23,974	33,736	92,709	88,169	32,563	3,097	--	4,751
Lumber and Timber	16,094	16,228	12,341	22,916	26,096	24,814	6,349	291	--
Crude Wood Materials N.E.S.	--	--	--	--	--	--	--	12	--
Sawmill Products N.E.S.	1,086	454	--	--	--	--	--	--	--
Newsprint Paper	--	--	--	--	--	--	--	797	--
Woodpulp	18,992	13,754	8,106	21,004	25,259	24,602	36,151	48,415	75,941
Paperboard	--	--	--	--	--	--	--	206	--
Veneer and Plywood	--	20	138	515	837	1,042	--	77	--
Paper N.E.S.	--	--	--	--	--	--	--	--	314

Table 15 (continued)

	1961	1962	1963	1964	1965	1966	1967	1968	1969
Total Wood-Products	81,256	62,738	54,321	137,519	140,993	83,021	45,597	49,798	81,006
Copper Ore	--	--	3,249	1,615	6,610	--	585	779	--
Lead Ore	--	8,215	7,723	26,066	15,763	7,129	10,148	4,592	--
Zinc Ore	--	7,688	7,381	16,715	--	--	--	9,392	--
Other	--	3	--	21	20	--	420	419	7,128
Total Cargoes	81,256	78,644	72,674	181,936	163,386	90,150	56,750	64,980	88,134
SAINT JOHN									
Logs Round Timber	8,748	4,355	3,226	2,042	1,371	8,324	6,016	3,254	3,331
Pulpwood	--	326	--	--	--	49,017	8,358	45,236	58,332
Lumber and Timber	41,078	45,678	36,688	63,494	57,392	61,630	22,851	9,207	1,562
Flooring	1,992	680	--	--	1,440	1,588	1,434	858	391
Sawmill Products N.E.S.	--	58	7,603	5,263	--	70	15	115	225
Boxcrate Cooperage	--	76	--	--	--	--	--	2	--
Veneer and Plywood	363	--	1,044	77	77	658	101	292	580

Table 15 (continued)

	1961	1962	1963	1964	1965	1966	1967	1968	1969
Wood Fabricated Materials N.E.S.	757	732	1,070	328	550	1,144	977	8,724	624
Pulp	11,057	14,155	13,126	14,727	22,830	21,677	21,524	40,098	63,942
Newsprint Paper	34,624	40,311	19,479	24,194	83,738	117,719	114,108	101,719	75,012
Paper N.E.S.	2,215	1,166	4,319	3,310	1,373	9,290	5,046	2,978	10,900
Paperboard	5,238	9,042	10,127	12,997	8,482	18,031	5,899	8,716	5,023
Building Paper and Materials	102	--	--	--	61	279	2	591	8,446
Paper Paperboard N.E.S.	1,423	97	15	716	--	--	--	--	--
Crude Wood Materials N.E.S.	--	--	--	--	--	--	--	8,248	--
Wet Machine Paperboard	--	--	--	--	153	1,177	1,009	613	30
Total Wood-Products	107,597	116,676	96,697	127,148	177,467	290,604	187,340	230,651	228,398
Total Cargoes	1,241,388	1,112,511	1,467,211	1,463,942	1,475,182	1,570,814	1,227,946	1,068,114	1,307,857

Table 15 (continued)

	1961	1962	1963	1964	1965	1966	1967	1968	1969
ALL OTHER N.B. PORTS									
Logs Round Timber	360	--	--	--	--	9	--	--	--
Pulpwood	5,562	2,398	26,387	27,330	23,342	10,591	2,713	8,360	--
Lumber and Timber	--	--	18	--	2,012	--	679	--	--
Pulp	--	--	--	2,600	3,611	--	1,557	1,679	--
Paperboard	--	--	--	--	--	--	--	--	2,932
Total Wood-Products	5,922	2,398	26,405	29,930	28,965	10,600	4,949	10,039	2,932
NEW BRUNSWICK TOTALS (cargo tons)									
Total Wood-Products	609,022	623,483	552,113	758,384	743,109	759,904	577,134	601,637	621,280
Total Cargoes	1,763,183	1,680,398	2,007,840	2,384,899	2,576,595	2,560,979	2,060,314	1,938,252	2,128,308
Total Wood-Products as a % of Total Cargoes Loaded	34.5	37.1	27.5	31.8	28.8	29.7	28.0	31.0	29.2

Source: DBS 54-203.

Table 16

Destination of Total Shipments of Goods
by Own Manufacture Shipped by
Sawmills and Planing Mills by Province of Origin, 1967
($'000)

Destination of Shipments	Shipments From New Brunswick	Shipments To New Brunswick	Origin of Shipments
Newfoundland	473	-	Newfoundland
Prince Edward Island	21	-	Prince Edward Island
Nova Scotia	99	x[1]	Nova Scotia
New Brunswick	22,950	22,950	New Brunswick
Quebec	2,302	359	Quebec
Ontario	1,073	x[1]	Ontario
Manitoba	-	-	Manitoba
Saskatchewan	-	-	Saskatchewan
Alberta	-	-	Alberta
British Columbia	-	265	British Columbia
Yukon & N.W.T.	-	Included with B. C.	Yukon & N.W.T.
Canada, total	26,918	23,640	Canada, total
Other Countries	6,388	..	Other Countries
Total	33,306	..	Total

1. Shipments to New Brunswick mills from Nova Scotia and Ontario totaled $66 thousand in 1967.

Source: DBS Destination of Shipments of Manufacturers.

Table 17

Destination of Total Shipments of Goods of Own Manufacture Shipped by Sash Door and Other Millwork Plants by Province of Origin, 1967

Destination of Shipments	Shipments from New Brunswick	Shipments to New Brunswick	Origin of Shipments
Newfoundland	-	-	Newfoundland
Prince Edward Island	X	-	Prince Edward Island
Nova Scotia	384	338	Nova Scotia
New Brunswick	1,924	1,924	New Brunswick
Quebec	-	422	Quebec
Ontario	X	496	Ontario
Manitoba	-	-	Manitoba
Saskatchewan	-	-	Saskatchewan
Alberta	416	-	Alberta
British Columbia	-	244	British Columbia
Yukon & N.W.T.	-	Included with B. C.	Yukon & N.W.T.
Canada, total	..	3,424	Canada, total
Other Countries	X	..	Other Countries
Total	3,285	..	Total

Source: DBS Destination of Shipments of Manufacturers.

Table 18

Destination of Total Shipments of Goods of Own Manufacture Shipped by Pulp and Paper Mills by Province of Origin, 1967

($'000)

Destination of Shipments	Shipments from New Brunswick	Shipments to New Brunswick	Origin of Shipments
Newfoundland	179	-	Newfoundland
Prince Edward Island	x[1]	-	Prince Edward Island
Nova Scotia	686	507	Nova Scotia
New Brunswick	15,851	15,851	New Brunswick
Quebec	19,311	5,296	Quebec
Ontario	21,086	1,618	Ontario
Manitoba	191	-	Manitoba
Saskatchewan	-	-	Saskatchewan
Alberta	x[1]	-	Alberta
British Columbia	x[1]	939	British Columbia
Yukon & N.W.T.	-	Included with B. C.	Yukon & N.W.T.
Canada, total	57,477	24,211	Canada, total
Other Countries	91,585	..	Other Countries
Total	149,062	..	Total

1. Shipments to New Brunswick mills to P.E.I., Alb. and B. C. totaled to $173 thousand in 1967

Source: DBS Destination of Shipments of Manufacturers.

Table 19

Shipments of Roundwood by the "Logging Industry,"
New Brunswick, 1963-1968

Product	Unit	Quantity					
		1963	1964	1965	1966	1967	1968
Logs & Bolts	m. ft. b. m.	194,401	245,949	354,157	337,176	278,414	363,109
Logs & Bolts	m. cu. ft.	136	721	225	1,351	1,746	304
Pulpwood	cord	1,520,586	1,697,738	1,780,838	1,857,905	1,880,305	2,020,024
Poles & Piling	m. cu. ft.	355	461	407	331	379	353
Other Roundwood	m. cu. ft.	445	465	416	498	999	567

Product	Value					
	1963	1964	1965	1966	1967	1968
Logs & Bolts	8,071	10,713	14,251	14,039	12,948	15,292
Logs & Bolts	36	137	41	408	546	96
Pulpwood	33,360	36,688	40,794	44,112	47,900	50,819
Poles & Piling	184	245	212	186	253	295
Other Roundwood	82	85	70	122	183	125
Total	41,733	47,868	55,368	58,868	61,830	66,627

NOTE: Divisions may not add up to final total due to rounding.

Source: DBS 25-201

New Brunswick, 1960 (thousands of dollars)

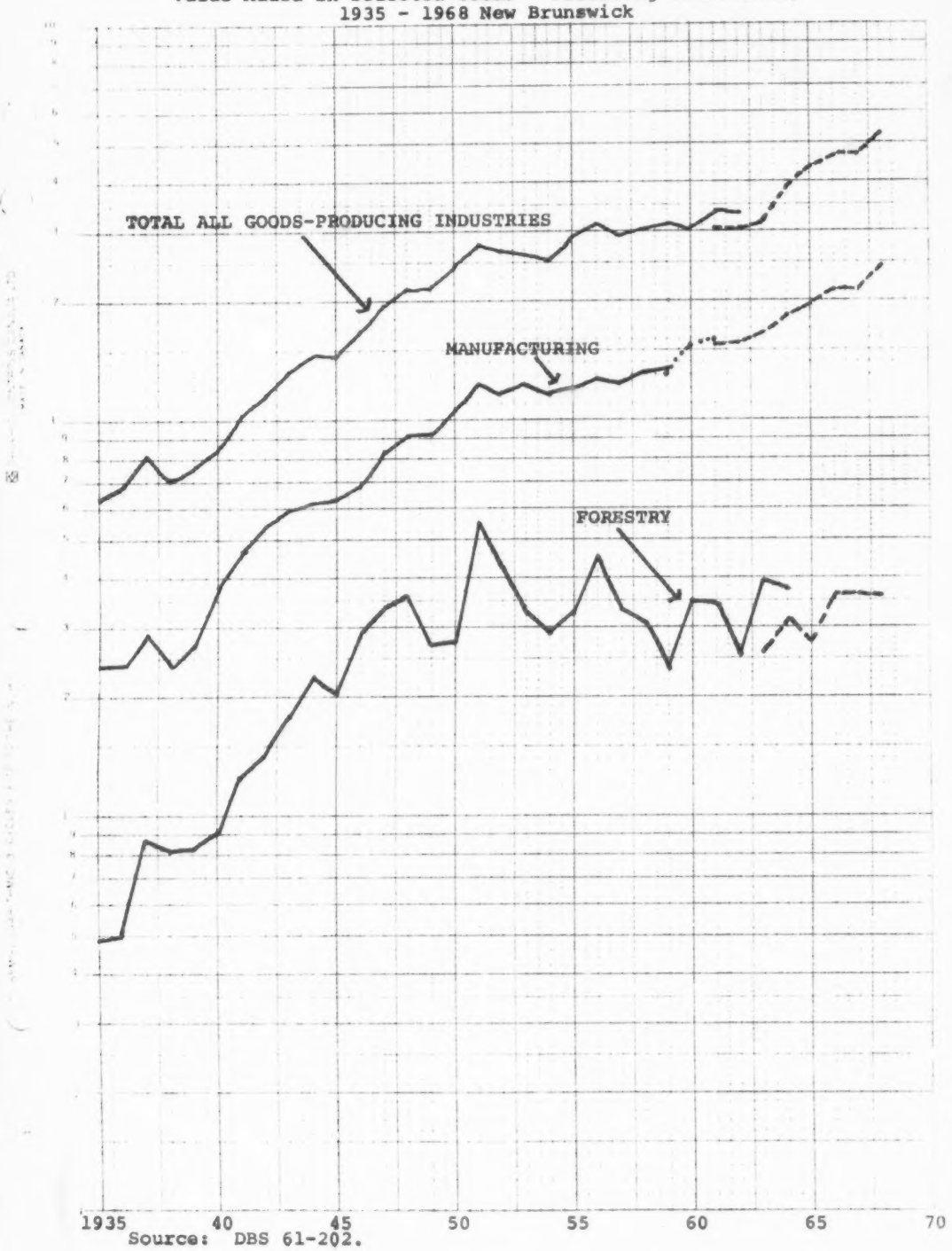
Other Intermediate Demand	Total Intermediate Demand	Exports			Imports	Other Final	Total Final	Total Output
		Foreign	Canada except A. P.	Atlantic				
21340.9	48867.8	3937.0	10611.0	477.0	-7901.2	5267.6	12391.4	61259.2
2656.0	29271.9	8977.0	3302.0	49.0	-9163.5	5223.0	8387.5	37659.4
-	14410.1	-	-	-	-5052.5	-	-5052.5	9357.6
2241.0	8566.7	1677.0	2507.9	31.0	-2599.4	1847.1	3463.6	12030.3
963.2	20766.3	8925.4	2511.8	2365.0	-5767.4	4511.9	12546.7	33313.0
731.2	13461.7	72964.0	19075.4	6371.0	-6607.1	7678.5	99481.8	112943.4
142343.4	219265.7	24624.1	15585.6	49678.0	-192550.6	132150.2	29487.3	248753.0
65249.0	70579.5	-	-	-	-	85728.5	85728.5	156308.0
777031.0	1110055.5	4170.1	24491.1	6.0	-782.0	179389.7	207274.8	1317330.4
1012555.7	1535245.1	125274.5	78084.8	58977.0	-230423.7	421796.3	453708.9	1988954.0
304854.3	453788.3	-	-323.5	-	-	17267.2	16943.7	470732.0
1317410.0	1989033.4	125274.5	77761.3	58977.0	-230423.7	439063.5	470652.6	2459686.0

Table 20 Summary Input - Output

From \ To	Agriculture	Forestry	Fishing	Mining	Manufacturing: Wood Products	Manufacturing: Paper & Allied	Manufacturing: Other	Construction
Agriculture	5367.4	6238.3	-	-	-	-	15878.8	42.4
Forestry	80.0	-6051.9	412.6	60.0	10980.0	20897.2	81.6	156.4
Fishing	-	-	-	-	-	-	14410.1	-
Mining	-	-	-	17.1	30.5	4162.0	921.0	1195.0
Manufacturing								
Wood Products	753.4	5.9	-	25.6	5840.6	1911.3	953.6	10312.7
Paper and Allied	91.0	-	-	292.8	7.2	4678.3	7164.9	496.3
Other	8832.5	726.1	1630.2	2471.1	1361.8	10762.3	24048.2	27090.1
Construction	1793.0	958.0	179.9	59.0	100.0	492.0	1629.6	119.0
Other Intermediate	38815.2	31313.2	6286.5	8912.2	13273.3	42059.5	97717.8	94646.8
Total Intermediate	55732.5	33189.6	8509.2	11837.8	31593.4	84962.6	162805.6	134058.7
Total Primary	5526.5	4469.8	848.4	192.5	1719.6	27980.7	85947.1	22249.4
Total Output	61259.0	37659.4	9357.6	12030.3	33313.0	112943.3	248752.7	156308.1

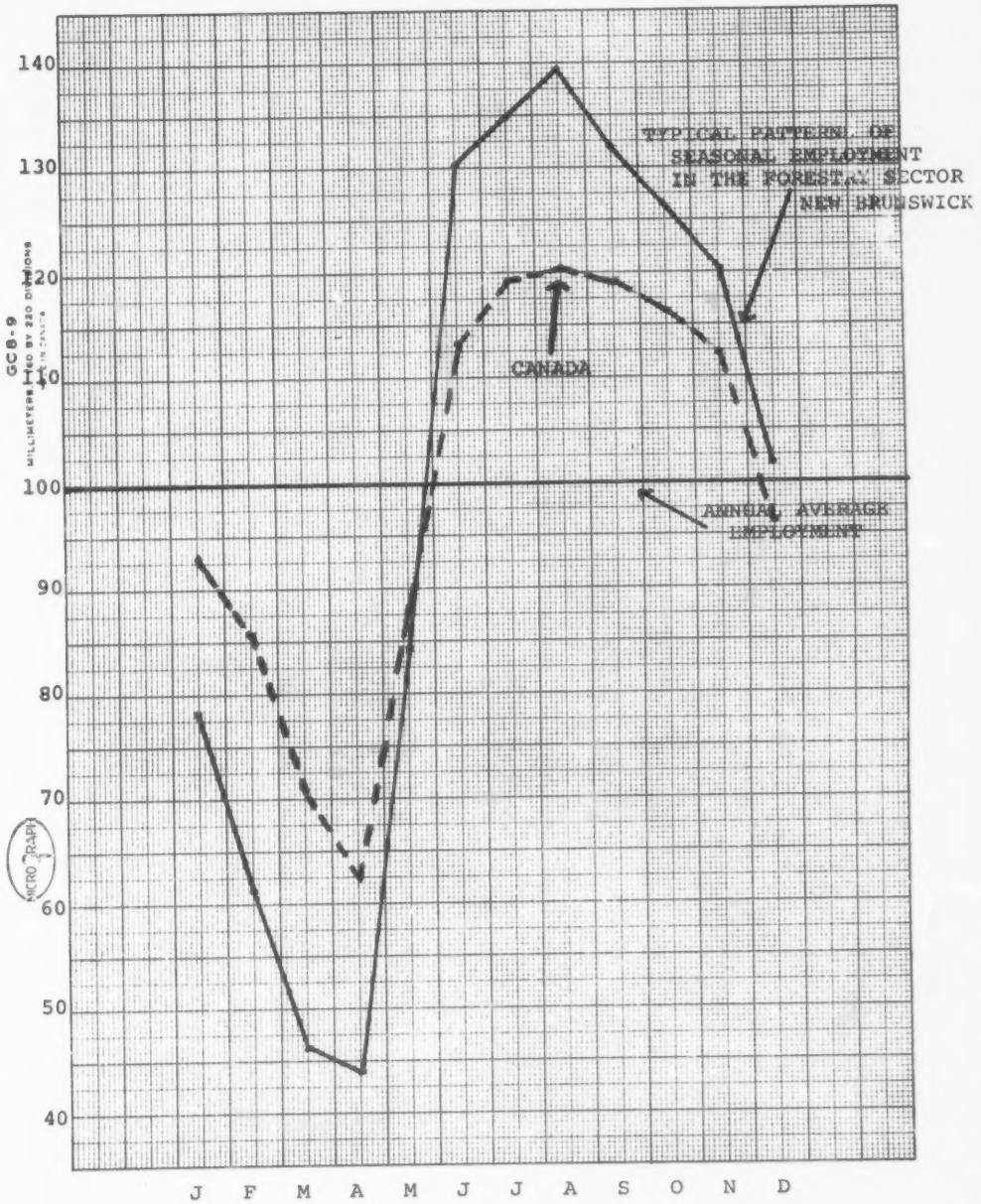
Source: 1960 Input Output Tables Model III

Value Added in Selected Goods - Producing Industries,
1935 - 1968 New Brunswick



Source: DBS 61-202.

Seasonal Index for Employment in the Forestry Sector, N.B. and Canada
Based on 1961-1970 Employment Data
Annual Average Employment = 100



Seasonal Index for Employment in the Forestry Sector, N.B. and Canada
Based on 1961-1970 Employment Data
Annual Average Employment = 100